

Data on the web

an **inconvenient** truth



Data on the web

some **inconvenient** truths

1

Most data on the web is

not Linked Data

(we don't care)



Tim Berners-Lee

"The system is failing."

*"We have to grit our teeth and hang on to the fence and not take it for granted that the web will lead us to wonderful things."**

* <https://www.theguardian.com/technology/2017/nov/15/tim-berners-lee-world-wide-web-net-neutrality>

1

Most data on the web is

not Linked Data

Relatively speaking, the LD-berg is melting



2

I am getting frustrated by the number of people calling any HTTP-based interface a REST API. Today's example is the SocialSite REST API. That is RPC. It screams RPC. There is so much coupling on display that it should be given an X rating.*

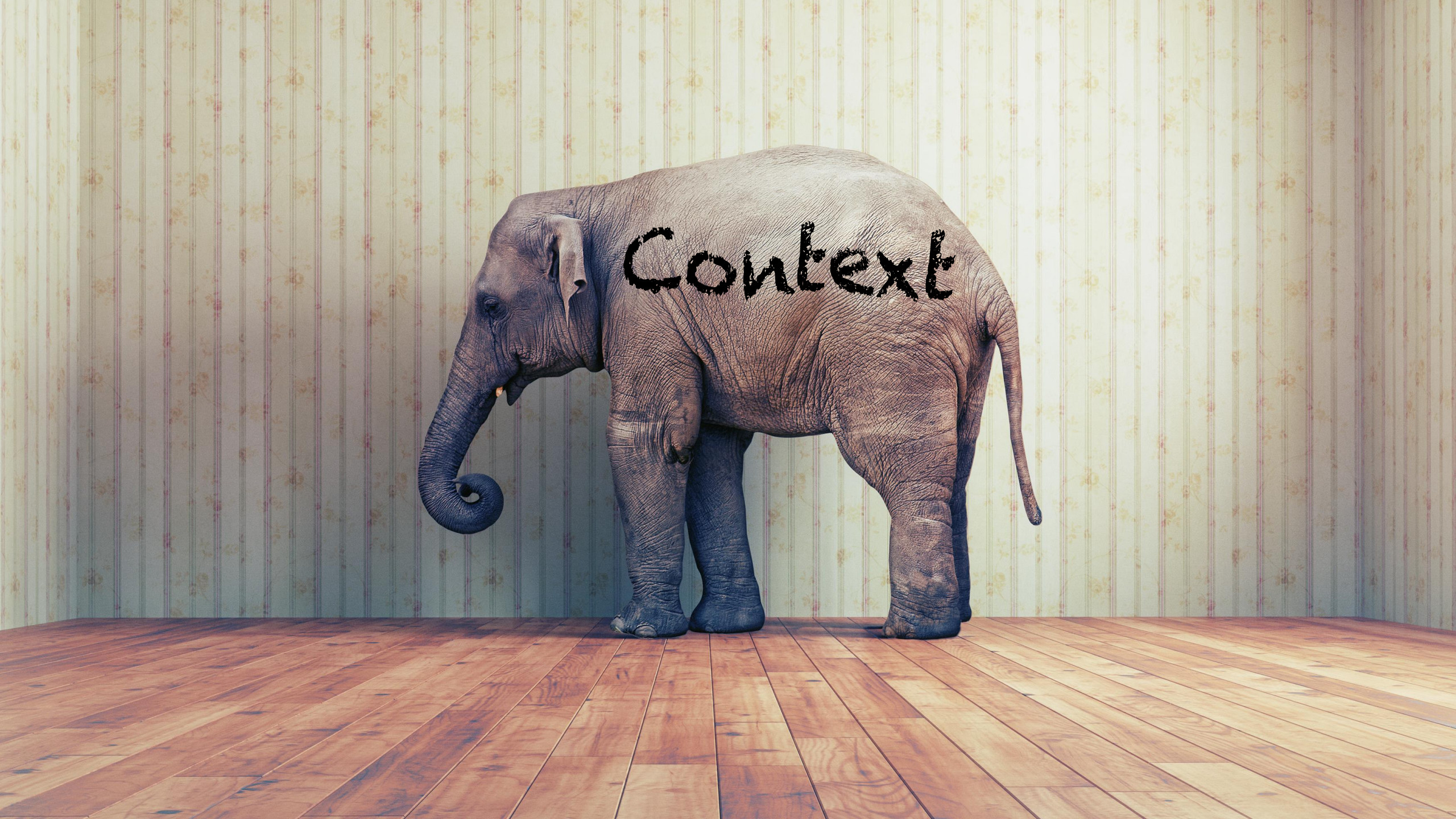


Roy Fielding

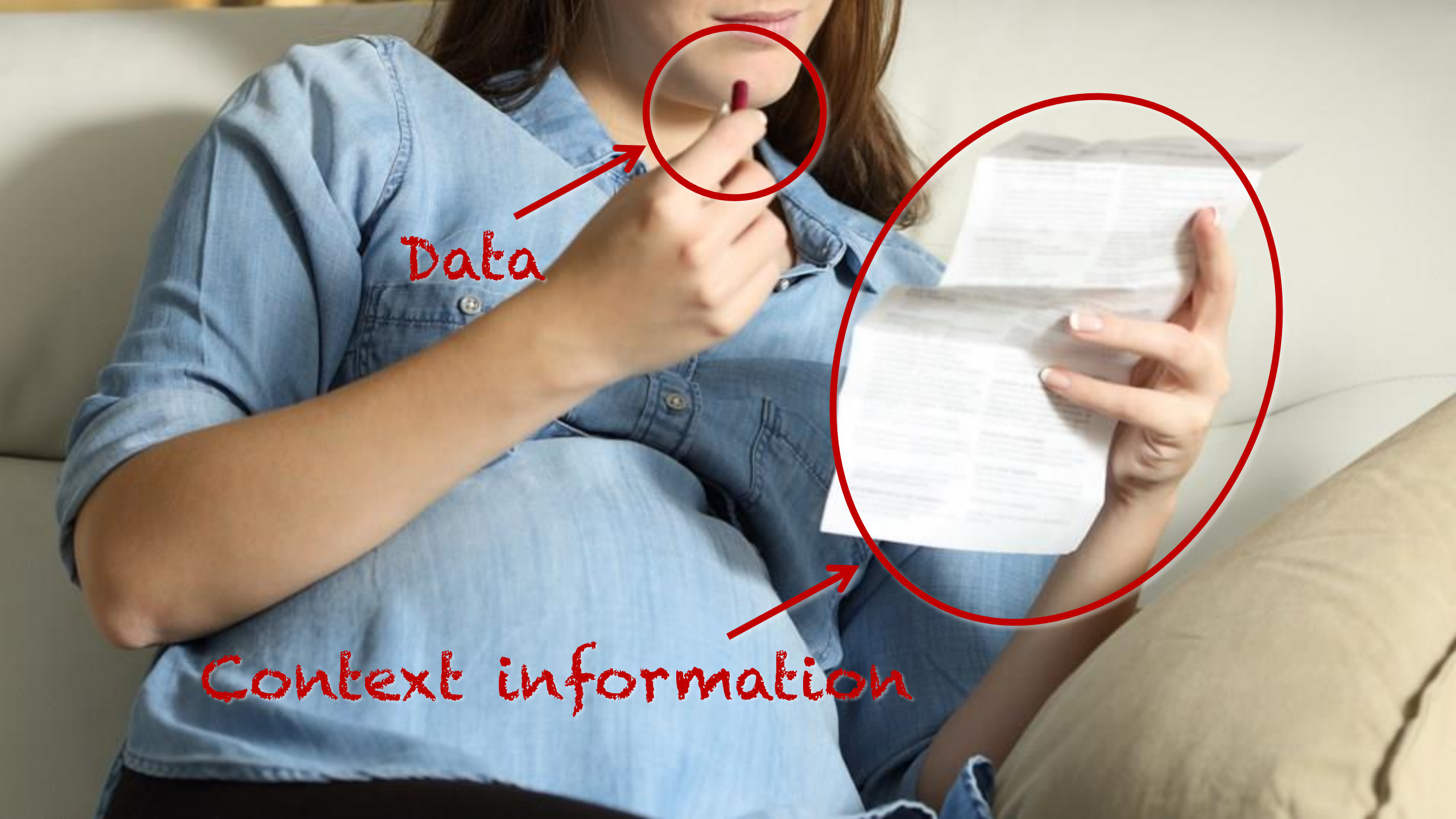
Most web API's are **not** RESTful

(current API's are like SOAP webservices
- with JSON)

* <http://roy.gbiv.com/untangled/2008/rest-apis-must-be-hypertext-driven>



Context



Data

Context information



Data

Would you use it without context?

```
{  
  "@context": "https://taxoffice.com/def#",  
  "@type": "Person",  
  "income": 25000  
}
```


3

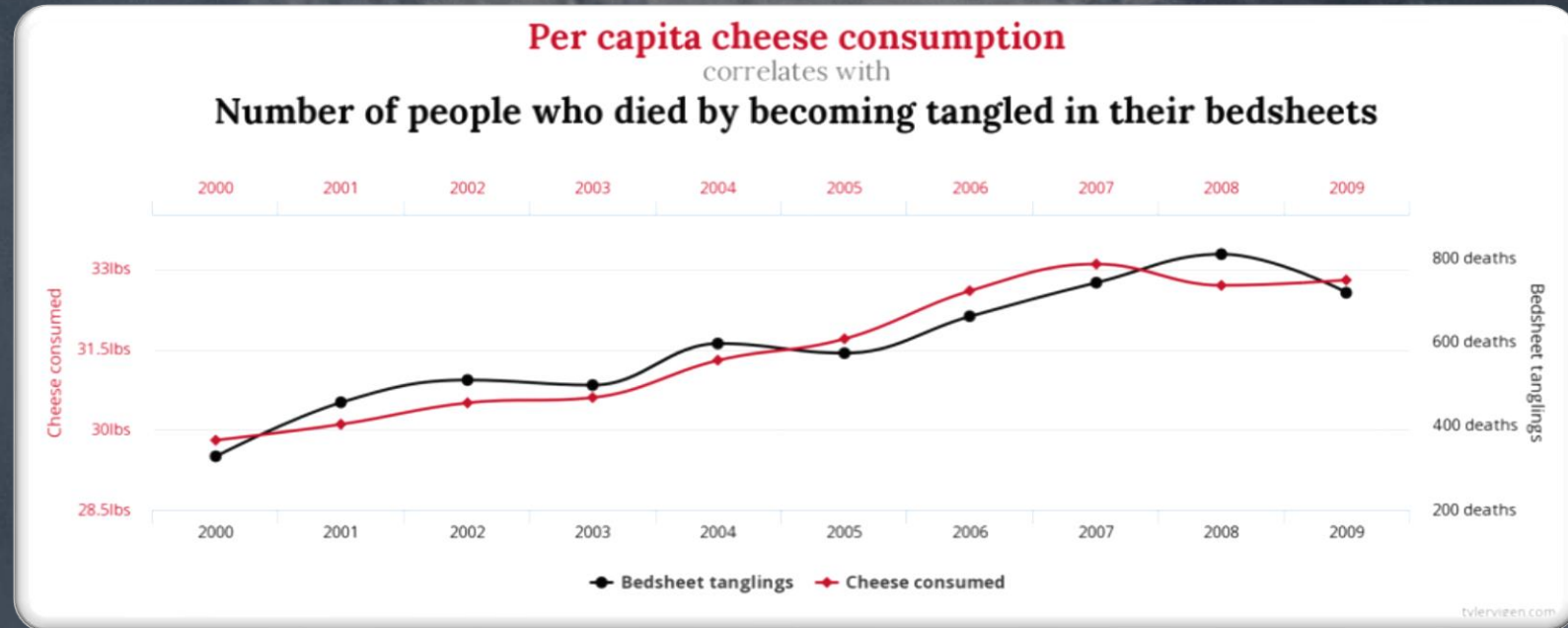
Most data on the web is

fake data

Fake data = data without context

3 fake data

“Eating cheese gets you killed in bed”*



Data sources: [U.S. Department of Agriculture](#) and [Centers for Disease Control & Prevention](#)

*<http://tylervigen.com/spurious-correlations>



Take care about your data

Don't pollute the web with **fake data**

Publish *fair* **data**

fair **data** = data with context

findable

accessible

interoperable

reusable

*This is your last chance. After this there is no turning back.
You take the blue pill: the story ends. You wake up in your bed and believe whatever you want to believe.
You take the red pill: you stay in wonderland. And I show you how deep the rabbithole goes.*



fair data

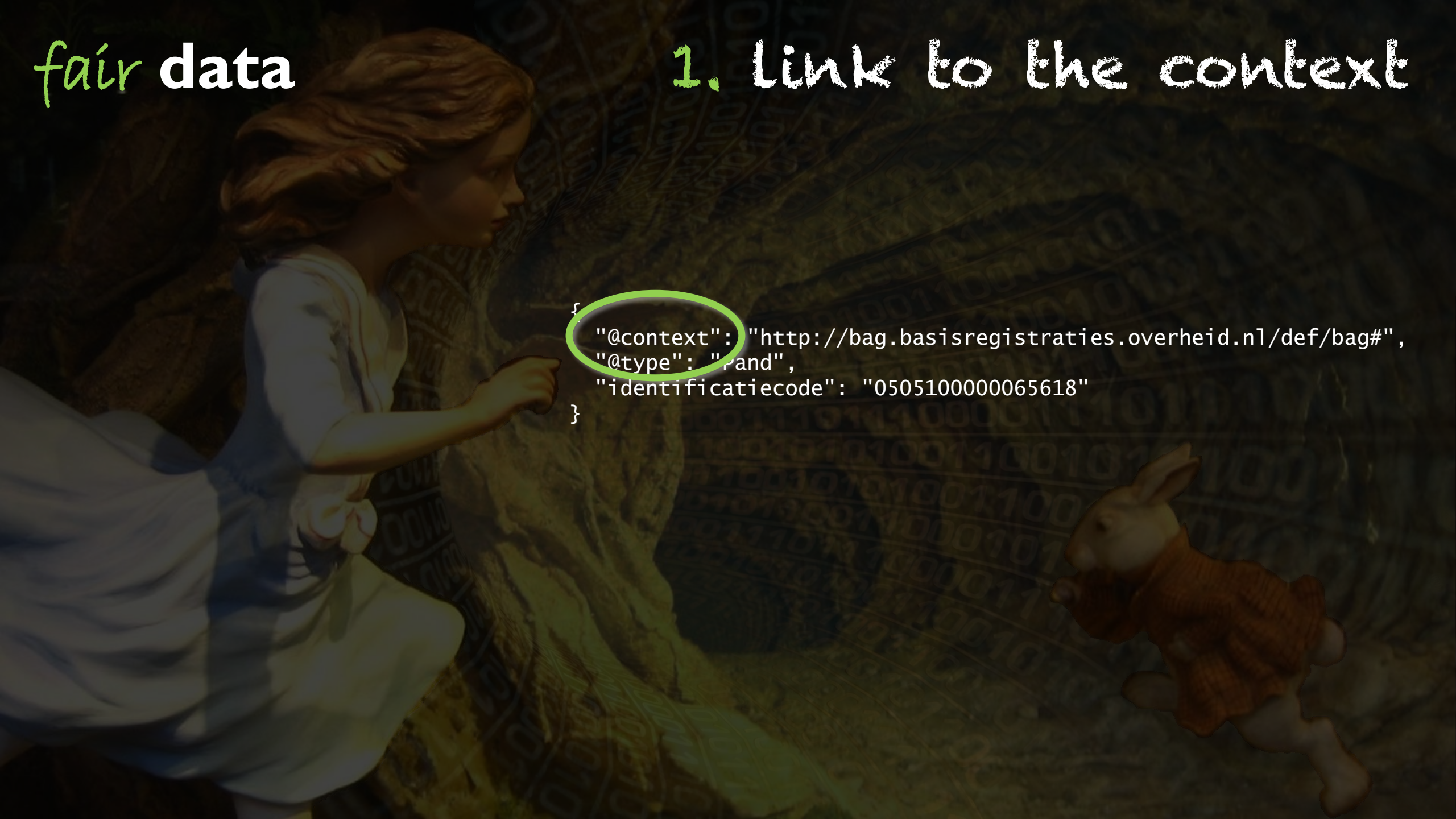


fake data

fair data

1. Link to the context

```
{  
  "@context": "http://bag.basisregistraties.overheid.nl/def/bag#",  
  "@type": "Person",  
  "identificatiecode": "0505100000065618"  
}
```



fair data

2. Use URI-templates

```
type Pand @uri(template "http://bag.basisregistraties.overheid.nl/bag/id/pand/{$identificatiecode}" {  
  identificatiecode: ID!  
})
```


fair data

3. Publish context

skos

```
concept:Pand a skos:Concept;  
  skos:definition "..."  
  dct:source <http://...>
```

owl

```
class:Pand a owl:Class;
```

rdfs

```
  rdfs:subClassOf geo:Feature;  
  dct:subject concept:Pand
```

dc

```
property:pandrelatering a owl:ObjectProperty.  
shape:Pand a sh:NodeShape;  
  sh:targetClass class:Pand;
```

shacl

```
shape:pandrelatering a sh:PropertyShape;  
  sh:path property:pandrelatering;  
  sh:class class:Pand;
```

dcat

```
dataset:Bag a dcat:Dataset;  
  dcat:contactPoint organisation:Kadaster;  
  void:subset dataset:Panden;
```

void

```
dataset:Pandadressen a void:Linkset;  
  void:target dataset:Panden;  
  void:target dataset:AdresseeerbareObjecten;  
  void:linkPredicate property:pandrelatering
```


about me



Mr. Marco Brattinga
Senior principal expert



marco.brattinga@ordina.nl



(+31) 6 53 37 55 74



<http://nl.linkedin.com/in/marcobrattinga>

about context



BP4mc²

<http://bp4mc2.org>

fake data

- API's that work within a specific context;
- No need to talk about context;
- Data remains in its silo;
- Understanding data remains in the hands of big corporations;
- Lots of work for the IT department.